



# Update on the OVRO Project

Doug Millar K6JEY  
San Bernardino Microwave  
Society

# The Present Situation

- There is a long term research project looking at cosmic background radiation that is currently using the 40m dish.
- Should the project have down time, we are ready to go on the air
- Should the project conclude, we will get air time.

# Results

- Experience of a lifetime as an operator.
- Excellent club activity, however it takes a significant effort to accomplish over a long period of time.
- Very high profile outreach for both ham radio and the dish owners.

# Future

- More work needs to be done on 10ghz to explore propagation and link values.
- Venus Bounce? It will take 50kw but is possible.
- Any dish activity is good for EME and ham radio. A prime focus dish is preferable.
- Outreach programs will continue- as they attract good numbers of participants.

# In The Meantime

- We are building another multiband front end and control interface
- We are conducting outreach activities at the dish that involve teachers and students exploring radio and visual astronomy and ham radio

The background is a dark blue gradient with a complex pattern of light blue dots and lines. The dots are arranged in a grid-like fashion, with lines connecting them to form a series of overlapping diamond shapes. The pattern recedes into the distance, creating a sense of depth. A few lines cross the pattern at different angles, adding to the geometric complexity.

Link to OVRO Trip  
<http://blip.tv/file/673671>

# What Have We learned?

- 23cm EME was easy and very exciting with many stations worked.
- 10ghz signals were heard and echoes were tremendously loud. No QSO's resulted. Some research was done.
- Opportunities to use a large dish can be of limited duration.

● Very small stations weren't worked as minimum station requirements were considerable:

- 50watts
  - At least one long yagi with az/el
- Good preamp.

● 10Ghz needs much more research and more time to understand propagation. Calculated station requirements were set too low.

# Suggestions

- If it is desired to use a large dish as an EME gateway, efforts should be put to 144 and 432mhz operation.
- Current stations with 10m dishes or large yagi arrays may be better gateway stations as they are on the air all the time.

# Comments?

 Doug K6JEY [dmillar@moonlink.net](mailto:dmillar@moonlink.net)